South Coast
Air Quality Management District
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Draft Mitigated Negative Declaration for the Proposed Planning Cases P04-1481, P04-1482 and P04-0150: The Magnon Companies – Sycamore Canyon

The South Coast Air Quality Management District (SCAQMD) appreciates the opportunity to comment on the above-mentioned document. Based on staff's review of the associated Air Quality Analysis document, it is likely that the proposed project will generate significant adverse NOx and VOC construction air quality impacts and significant cumulative construction and operational air quality impacts. As such, the project does not qualify for a negative declaration. The SCAQMD recommends that the air quality analysis be revised and an EIR be prepared and circulated for public review.

The SCAQMD would be happy to work with the Lead Agency to address these issues and any other questions that may arise. Please contact Gordon Mize, Air Quality Specialist – CEQA Section, at (909) 396-3302, if you have any questions regarding these comments.

Sincerely,

Steve Smith, Ph.D.
Program Supervisor
Planning, Rule Development & Area Sources

Attachment

SS:GM

RVC051221-01
Control Number

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Construction Impacts

1. Under Section 2.0 Project Description on page 3 of the separate Air Quality Analysis, the lead agency states that the proposed project will be constructed in two phases listing only the start year of Phase one as 2006 but does not include the month or the length of time for each construction sub-phase, i.e., site preparation, building construction, etc. will occur or the anticipated date of completion. The information for Phase II provides only the completion date, 2008. To more accurately characterize potential impacts, it is recommended that the lead agency include the anticipated starting and completion dates for each phase of construction and the estimated length of time for each construction sub-phase. The lead agency should also clarify if the construction activities for the two phases will overlap. If Phase I and Phase II overlap, then the estimates for both phases should be combined and compared to the SCAQMD's recommended daily significance thresholds as a worst-case estimate.

2. In Section 2.1; Proposed Location, of the Air Quality Analysis, the lead agency describes the project size as a 40-acre site to be developed, but in the Project Description given in the Environmental Initial Study, the project size is 84.31 acres. The agency should correct or explain this apparent discrepancy.

3. The lead agency should discuss if there will be any cut or fill activities and if any soil will be imported or exported during the site preparation sub-phase of the project. If soil import or export activities occur, then vehicle and equipment emission estimates would have to be added to the construction emission estimate totals. Depending upon the actual number of acres disturbed each day and if other soil disturbance activities will occur, the construction emission estimates could be substantially underestimated. The lead agency should also describe the methodologies, assumptions, emission factors, and equations used to support its estimates for each piece of construction equipment. In addition, the lead agency should also clarify what is meant by the reference "ARB Certified Engines Emissions."

4. The lead agency did not estimate emissions for the architectural coating, asphalt paving or employee trips associated with these construction activities. Based on the size of the structures, VOC emissions from architectural coatings in particular could be substantial.

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Emission Inventory

5. Review of the emission factors used to calculate heavy-duty truck trip emissions indicate that the weighted delivery truck emission factors from the SCAQMD webpage were used. These factors are a weighted factor derived from all heavy-duty truck classes, e.g., light-, medium-, and heavy-heavy-duty trucks. Since it is likely that all delivery trucks will be heavy-heavy-duty trucks, it is recommended that emissions for these vehicles be calculated using the heavy-heavy-duty truck emission factors, which can be found at the following web address: http://www.aqmd.gov/ceqa/handbook/onroad/onroadHHDT05_25.xls .

Health Risk Assessment (HRA)

6. Insufficient information was provided in the HRA, so SCAQMD staff could not verify whether or not the significance conclusion reached on health risk impacts is correct. The following describes the information required for evaluation of the HRA.

    a) Air dispersion modeling was completed using the calms processing routine. Because of the way SCAQMD meteorological data is compiled, the SCAQMD protocol requires that the modeler bypass the calms processing routine. Air dispersion modeling should be performed with the calms processing routine bypassed.

    b) Documentation of emission rates was not provided. Without documentation of the emission rates, reviewers cannot verify that the risk assessment is representative of the proposed project. Documentation should include assumptions, site parameters such as length of trip (on and off-site), a realistic assumption of the duration of time trucks idle on site, duration of time TRUs are used on site, travel and idle emission factors developed from EMFAC2002, and CARB emission factors for TRUs. The Air Quality Impact Analysis states that no idling would occur during the loading/unloading operations. This is an unreasonable assumption given that one truck will be visiting the site to load and unload every 1.2 minutes (assuming the facility operates 24 hours per day). Assumptions, parameters, emission factors, calculations and references used to prepare the HRA should be included in the Final CEQA document.

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HRA cont.

c) Maps of the site, surrounding area, receptors and concentration isopleths were not provided. Without maps of the site and surrounding area, reviews cannot verify that the proper area was used or that in the area source emission rate grams per square meter-second (g/m^2-s) was used correctly. In addition, reviews cannot verify that the receptors were placed correctly. Receptors should be placed according to SCAQMD HRA guidance (http://www.aqmd.gov/prdas/ab2588/AB2588_B3.html and http://www.aqmd.gov/prdas/Risk%20Assessment/RiskAssessment.html) and the SCAQMD CEQA Air Quality Handbook. Maps of the site, surrounding area, receptors and concentration isopleths should be included in the Final CEQA document.

d) The unit risk factor for diesel exhaust particulate used in the HRA was $4.3x10^{-4}$ $(ug/m^3)^{-1}$, which is not correct. The correct unit risk factor is $3x10^{-4}$ $(ug/m^3)^{-1}$.

Carbon Monoxide (CO) Hotspots

7. No documentation was provided with the CO hotspots output file, therefore, the CO hotspots analysis could not be verified by SCAQMD staff. The following describes the information required for evaluation of the CO hotspots.

   a) The traffic study was not provided. The 2005 existing condition HCS2000 reports and traffic signal installation warrant assessments were provided, but no explanation was provided. No proposed project traffic information was provided. Since the traffic study was not provided, SCAQMD staff could not verify that the correct intersection(s) was/were chosen for CO hotspot evaluation, the traffic volumes were entered correctly, the model correctly captured the intersection spatial geometry, the vehicle speeds were characterized correctly, and that the receptors were placed correctly. The traffic study should include the above information should be included in the Final CEQA document.

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Carbon Monoxide (CO) Hotspots, cont.

b) The links presented in the one-hour run and eight-hour multi-run worst-case run are not consistent (see attached). The spatial locations used in both do not make sense. In the one-hour file the roads are placed on top of each other. In eight-hour multi-run worst-case, the roads are all semi parallel to each other. When a map was consulted, Eastridge Avenue bisects both Sycamore Canyon and Boxspring Boulevard. The correct spatial geometry should be used to model the CO concentrations in the Final CEQA document.

c) The EMFAC2002 output file was not provided; therefore, the emission factor could not be verified. The EMFAC2002 output file used for the CO hotspots analysis should be included in the Final CEQA document.

d) The receptors were placed directly on the links and only at the southern most portions of the links. CO hotspots analysis should be completed according to the CALTRANS Transportation Project-Level Carbon Monoxide Protocol (CO Protocol), Revised December 1997, UCD-ITS-RR-97-21 except EMFAC2002 emission factors should b e used. The CO Protocol can be downloaded from the CALTRANS website at http://www.dot.ca.gov/hq/env/air/coprot.htm. The CO Protocol states that receptors should be placed at a minimum three meters from the roadway. Concentrations from receptors placed closer than three meters are not considered valid. Receptors should be placed according to Table B.12 in the CO Protocol. A map with roadways and land use designations and/or an aerial map should be included with the Final CEQA document so that receptor placement can be verified. The CEQA document should include a CO hotspots analysis prepared according to the CO Protocol.

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Carbon Monoxide (CO) Hotspots, cont.

e) The concentrations reported in Table 4 of the Air Quality Impact Analysis are not consistent with the CALINE4 output files. The table includes a footnote that states that the ambient one-hour concentration is 4.4 ppm; however, the ambient background concentration in the CALINE4 output file is 3.0 ppm.

f) The eight-hour concentration was estimated using the multi-run/worst case hybrid option in CALINE4. The eight-hour concentration should be estimated from the one-hour concentration using a persistence factor of 0.7 or 0.8 pursuant to the CO Protocol and the SCAQMD CEQA Air Quality Handbook.

Mobile Source Impacts

8. In the Air Quality Impact Analysis, the lead agency uses a vehicle miles per trip rate of 1.6 miles for construction worker commute trips, project employee commute trips and delivery truck to estimate mobile source emissions for estimating emissions from construction worker trips (Table 2) and operational mobile source emissions (Table 3). The lead agency cites the URBEMIS 2002 User's Guide as the source of the trip lengths used. Review of the URBEMIS 2002 User's Guide does not show any trip lengths of 1.6 miles. Instead, the URBEMIS 2002 User's Guide shows a default home to work trip length of 10.6 miles per one-way trip (21.2 miles per round trip). Further, given that delivery trucks could make trips to deliver goods to the California border, a more reasonable truck trip delivery truck trip length is 40 miles per one-way trip. Given these more realistic trip lengths, CO, NOx and VOC emissions from mobile sources would substantially exceed the significance thresholds recommended by the SCAQMD. Even with the mitigation measures identified, the proposed project would substantially exceed recommended significance thresholds.

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Mobile Source Impacts, cont.

9. In Section 4.0 Proposed Air Quality Mitigation, the lead agency proposes mitigation measures to reduce operational emissions from employee work trips and long-term emissions from on-road truck emissions. The lead agency proposes offering incentives for employees to carpool and commute using local transit, including the Metrolink station that is scheduled to open in 2008.

   Although offering incentives may reduce employee trips, there is no guarantee that any employees, or a sufficient percentage of employees will take advantage of the incentive programs. Historically in the district, including Riverside County, the percentage of employees carpooling and using transit is extremely small. Given the magnitude of the mobile source emissions (see comment #8) using more realistic trip lengths, it is not likely that using incentive programs will reduce mobile source emission impacts to less than significance.

   The lead agency also indicates that heavy-duty delivery truck emissions could be reduced be retrofitting older delivery trucks with oxidation catalysts. Given that the delivery trucks are not likely to be owned by the project proponent, it is unclear how this mitigation measure can be implemented. Further, given the magnitude of emissions from heavy-duty delivery trucks using more realistic trip lengths assumptions, it is not likely emissions from delivery trucks can be reduced to be less than significant.

Cumulative Project Impacts

10. The cumulative impacts analysis suffers from the same major flaw as the project-specific analysis, that is, trip lengths for both employee commute trips and heavy-duty truck delivery trips are substantially underestimated. Using more appropriate trip length assumptions is expected that the analysis will result in significant operational CO, NOx and VOC emission impacts. Given that other related projects would add substantially to the already significant project-specific impacts, cumulative CO, NOx and VOC emission impacts are also expected to be be considered significant.

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Mitigation Measures for Construction Air Quality Impacts

11. If there is concurrent construction occurring from the proposed project and two other related projects in the Sycamore Business Park development, it is likely that construction air quality impacts from all three projects could exceed established daily construction significance thresholds recommended by the SCAQMD. If cumulative construction impacts exceed the applicable construction significance thresholds, the SCAQMD staff recommends that the lead agency consider adding the following mitigation measures to further reduce construction air quality impacts from the project, if applicable and feasible:

    VOC Emissions from Architectural Coatings

    Require the project proponent to:

    - Use coatings and solvents with a VOC content lower than required under Rule 1113.
    - Construct/build with materials that do not require painting
    - Restrict daily coating usage to less than approximately 65 gallons per day (assuming a VOC content of 1.1 pound per gallon).

12. Should any cumulative construction activities exceed any daily significance thresholds, the SCAQMD recommends that the lead agency consider the following additional mitigation measures to reduce construction air quality impacts from the project, if applicable and feasible:

    Recommended Additions:

    - Prohibit all diesel trucks from idling in excess of five minutes, both on-site and off-site.
    - Reroute construction trucks away from congested streets or sensitive receptor areas.
    - Provide dedicated turn lanes for movement of construction trucks and equipment on- and off-site.
    - Schedule construction activities that affect traffic flow on the arterial system to off-peak hour to the extent practicable.

- Give preferential consideration to contractors who use clean fuel construction equipment; emulsified diesel fuels; construction equipment that uses low sulfur diesel and is equipped with oxidation catalysts, particulate traps, or other retrofit technologies, etc.

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Mitigation Measures for Operational Air Quality Impacts

19. Since it is likely that project-specific operational air quality impacts from the proposed project would exceed the CO, NOx and VOC daily significance thresholds, the SCAQMD recommends that the lead agency consider the following additional mitigation measures to further reduce project-specific operational air quality impacts from the project in conjunction with other similar projects at the business park:

    Recommended Additions:

    - Prohibit all vehicles from idling in excess of five minutes, both on-site and off-site.
    - Create a buffer zone of at least 300 meters (roughly 1,000 feet), which can be office space, employee parking, greenbelt, etc. between the warehouse/distribution center and sensitive receptors;
    - Design the warehouse/distribution center such that entrances and exits are such that trucks are not traversing past neighbors or other sensitive receptors.
    - Design the warehouse/distribution center such that any check-in point for trucks is well inside the facility property to ensure that there are no trucks queuing outside of the facility;
    - Design the warehouse/distribution center to ensure that truck traffic within the facility is located away from the property line(s) closest to its residential or sensitive receptor neighbors.
    - Restrict overnight parking in residential areas;
    - Establish overnight parking within the warehouse/distribution center where trucks can rest overnight;
    - Establish area(s) within the facility for repair needs.
    - Post signs outside of the facility providing a phone number where neighbors can call if there is a specific issue.
    - Develop, adopt and enforce truck routes both in and out of city, and in and out of facilities;
    - Have truck routes clearly marked with trailblazer signs, so trucks will not enter residential areas;
    - Identify or develop secure locations outside of residential neighborhoods where truckers that live in the community can park their truck, such as a Park & Ride;

- Provide food options, fueling, truck repair and or convenience store on-site to minimize the need for trucks to traverse through residential neighborhoods.
- Re-route truck traffic by adding direct off-ramps for the truck or by restricting truck traffic on certain sensitive routes;

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Mitigation Measures for Operational Air Quality Impacts, cont.

Recommended Additions:

- Improve traffic flow by signal synchronization;
- Use street sweepers that comply with SCAQMD Rules 1186 and 1186.1;
- Require or provide incentives to use low sulfur diesel fuel with particulate traps or alternative fueled off-road equipment;
- Conduct air quality monitoring at sensitive receptors.